

National Institutes of Health National Cancer Institute Bethesda, Maryland 20892 Executive Plaza North Room 540 August 27, 1990

Mrs. Albert Lasker The Albert and Mary Lasker Foundation 866 United Nations Plaza New York, NY 10017

Dear Mrs. Lasker:

On behalf of Dr. Samuel Broder and the National Cancer Institute, you are invited to participate in a National Cancer Institute (NCI) Workshop on Cancer Vaccines to be held October 29-30, 1990 at the Bethesda Hyatt Regency Hotel, Bethesda, Maryland. The purpose of this workshop is to assess the current knowledge in this field and to enlist suggestions from workshop participants for areas of research which the NCI might support through the grant, cooperative agreement or contract mechanism to further the development of cancer vaccines.

The possibility of developing cancer vaccines is complicated by the fact that cancer is a diverse set of diseases, some of which are associated with specific etiological agents, such as viruses, and others of still unknown etiology. The conventional vaccine approach depends on the ability to identify specific antigens associated with a particular disease entity or neoplasia and to elicit an appropriate protective host immune response to those antigens. Thus, for those cancers in which a viral disease plays a major role, a conventional vaccine approach could be feasible. Such a vaccine should be designed to prevent initial virus infection, and could additionally prevent the cancers associated later in life with that virus. Alternatively, a therapeutic vaccine approach could be used in which tumor antigens and/or modified cellular substances appearing during the neoplastic process are reintroduced into the patient to stimulate anti-tumor activity and prevent the spread or recurrence of the tumor.

For tumors of non-viral etiology, which presently represent the majority of human tumors, vaccine antigens must be both tumor specific and applicable to a large segment of the potentially at risk population for the vaccine concept to be workable. To the extent that universal, group-specific and generalizable antigens cannot be identified, the concept of a vaccine to prevent malignancies becomes more problematic. However, recent work has demonstrated that it is possible to identify a subset of cells in the immune system of cancer patients that specifically recognize the patient's tumor and cause regression of the tumor. These cells, tumor infiltrating lymphocytes, represent the current evidence that the human immune system can specifically recognize and kill tumor cells and constitute an alternative approach to the classical vaccine approach.

Before any cancer vaccine studies can be carried out, a number of basic issues must be addressed, including: identification of relevant viral and/or tumor antigens; determination of the parameters needed for these antigens to achieve effective immunogenicity; and determination of the immunological effector mechanism(s) responsible for induction by a vaccine of strong resistance against growth and metastasis of cancer. Thus, the purpose of this workshop is to address these and other issues relevant to the development of cancer vaccines and to provide the NCI with suggestions about the directions for future efforts. Dr. Myron Essex, a member of the Division of Cancer Etiology Board of Scientific Counselors has agreed to chair the workshop. A tentative program for this workshop is enclosed. Because the intent of the workshop is to examine the state-of-the-art and future directions, speakers should design their presentations to address topics in terms of current knowledge and the broad implications of this knowledge rather than providing individual laboratory data. Thus, each presentation should be regarded as an overview discussion. Since the program is quite full, speakers should design their talks to fit the assigned time limit. At the end of each session, time has been set aside for discussion of the presentations in that individual session. The final session of the workshop will involve a group discussion. Specific individuals have been requested to act as discussion leaders for the status of various types of vaccine approaches. After they have presented an overview of the topic, a general discussion will follow in which all of the attendees should participate, and present their points of view, with emphasis on the directions of future research.

Travel and hotel arrangements will be handled by Crosspaths Management Systems. Meeting confirmation, travel reimbursement and honoraria procedures are described on the enclosed information sheets. To facilitate planning, it would be helpful if the meeting confirmation sheet is returned promptly.

Please note that the workshop will be recorded, but that the transcript will only serve as a general guide for NCI staff of the discussions that took place and for our permanent records. No verbatim transcript will be available. However, at a later time, NCI staff may submit a brief summary of the workshop to the Journal of the National Cancer Institute because of the general interest of the NCI community in the topic.

We look forward to your presence and active participation in this meeting.

Sincerely yours.

Jack Gruber Ph.D.

Chiet

Biological Carcinogenesis Branch Division of Cancer Etiology